Order Code RL33741

CRS Report for Congress

Navy Littoral Combat Ship (LCS) Program: Oversight Issues and Options for Congress

Updated December 11, 2006

Ronald O'Rourke
Specialist in National Defense
Foreign Affairs, Defense, and Trade Division

Prepared for Members and
Committees of Congress

Report Documentation Page

Form Approved
OMB No. 0704-0188

1. REPORT DATE	2. REPORT TYPE	3. DATES COVERED
11 DEC 2006	**N/A**	**-**

4. TITLE AND SUBTITLE	5a. CONTRACT NUMBER
Navy Littoral Combat Ship (LCS) Program: Oversight Issues and Options for Congress	5b. GRANT NUMBER
	5c. PROGRAM ELEMENT NUMBER
6. AUTHOR(S)	5d. PROJECT NUMBER
	5e. TASK NUMBER
	5f. WORK UNIT NUMBER
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) **Congressional Research Service The Library of Congress 101 Independence Ave, SE Washington, DC 20540-7500**	8. PERFORMING ORGANIZATION REPORT NUMBER
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)	10. SPONSOR/MONITOR'S ACRONYM(S)
	11. SPONSOR/MONITOR'S REPORT NUMBER(S)

12. DISTRIBUTION/AVAILABILITY STATEMENT
Approved for public release, distribution unlimited

13. SUPPLEMENTARY NOTES
The original document contains color images.

14. ABSTRACT

15. SUBJECT TERMS

16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT	18. NUMBER OF PAGES	19a. NAME OF RESPONSIBLE PERSON
a. REPORT	b. ABSTRACT	c. THIS PAGE			
unclassified	**unclassified**	**unclassified**	**SAR**	**15**	

Navy Littoral Combat Ship (LCS) Program: Oversight Issues and Options for Congress

Summary

The Navy is procuring a new class of surface combatant called the Littoral Combat Ship (LCS). The first LCS was procured in FY2005, another three were procured in FY2006, and two more were procured in FY2007. Current Navy plans call for procuring three LCSs in FY2008, and then about six per year in FY2009-FY2016, for a planned total of 55 ships.

The LCS is a small, fast surface combatant that uses modular "plug-and-fight" mission packages, including unmanned vehicles (UVs). The ship's mission orientation can be changed by changing out its mission packages. The basic version of the LCS, without any mission packages, is referred to as the LCS sea frame.

The LCS's primary intended missions are countering enemy mines, submarines, and fast attack craft in littoral (near-shore) waters. Secondary missions include intelligence, surveillance, and reconnaissance (ISR); maritime intercept; special operations forces (SOF) support; and logistics support for movement of personnel and supplies. The LCS is also mentioned in connection with the Navy's role in what the Bush Administration refers to as the Global War on Terrorism (GWOT).

The LCS program raises several potential oversight issues for Congress, including the increase in reported LCS unit procurement costs, the program's total acquisition cost, the acquisition strategy for later ships in the program, and the funding of LCS mission packages.

Potential options for Congress regarding the LCS program include the following: approving the program as proposed by the Navy; using a block-buy contract for LCSs procured during the five-year period FY2007-FY2011; shifting procurement of LCS mission packages to the SCN account to make these costs more visible to Congress; shifting production of some LCSs to General Dynamics Bath Iron Works (GD/BIW) or Northrop Grumman Ship Systems (NGSS) or both to provide more work for one or both of these facilities; procuring a few LCSs and then evaluating them in exercises before deciding whether to put the LCS into larger-scale series production; and terminating the LCS program and invest more in other littoral-warfare improvements.

FY2007 Defense Authorization Act (H.R. 5122/P.L. 109-364). The conference report on the bill (H.Rept. 109-676 of September 25, 2006) approves the Navy's FY2007 procurement funding request for the LCS program

FY2007 Defense Appropriations Act (H.R. 5631/P.L. 109-289). The conference report on the bill (H.Rept. 109-676 of September 25, 2006) approves the Navy's request for $520.7 million in FY2007 procurement funding for the LCS program. The Senate report on the bill (S.Rept. 109-292 of July 25, 2006) had recommended funding the procurement of one LCS (rather than two) in FY2007, and rescinding funding for one of the three LCSs procured in FY2006. This report will be updated as events warrant.

Contents

List of Tables

Navy Littoral Combat Ship (LCS) Program: Oversight Issues and Options for Congress

Introduction

The Navy is procuring a new class of surface combatant called the Littoral Combat Ship (LCS). The first LCS was procured in FY2005, another three were procured in FY2006, and two more were procured in FY2007. Current Navy plans call for procuring three LCSs in FY2008, and then about six per year in FY2009-FY2016, for a planned total of 55 ships.

The issue for Congress is whether to approve, modify, or reject the Navy's proposals for the LCS program. Decisions that Congress makes on procurement of surface combatants will significantly affect future Navy capabilities, Navy funding requirements, and the U.S. defense industrial base.

This report succeeds an earlier CRS report on the LCS program.[1]

Background

Future Surface Combatant Program

On November 1, 2001, the Navy announced a Future Surface Combatant Program aimed at developing and acquiring a family of three new classes of surface combatants:

- **a destroyer called DDG-1000 (formerly DD(X))** for the precision long-range strike and naval gunfire mission,
- **a cruiser called CG(X)** for the missile and air defense mission, and
- **a smaller combatant called the Littoral Combat Ship (LCS)** to counter submarines, small surface attack craft (also called "swarm boats"), and mines in heavily contested littoral (near-shore) areas.

For additional information on the DDG-1000 and CG(X) programs, see CRS Report RL32109, *Navy DDG-1000 (DD(X)) and CG(X) Ship Acquisition Programs: Oversight Issues and Options for Congress*, by Ronald O'Rourke.

---

[1] The earlier report was CRS Report RS21305, *Navy Littoral Combat Ship (LCS): Background and Issues for Congress*, by Ronald O'Rourke.

Littoral Combat Ship (LCS)

The LCS is a small, fast surface combatant that uses modular "plug-and-fight" mission packages, including unmanned vehicles (UVs). Rather than being a multimission ship like the Navy's current large surface combatants, the LCS is a focused-mission ship that will be equipped to perform one or two missions at any one time. The ship's mission orientation can be changed by changing out its mission packages. The basic version of the LCS, without any mission packages, is referred to as the LCS sea frame.

The LCS's primary intended missions are countering enemy mines, submarines, and fast attack craft in littoral (near-shore) waters. Secondary missions include intelligence, surveillance, and reconnaissance (ISR); maritime intercept; special operations forces (SOF) support; and logistics support for movement of personnel and supplies. The LCS is also mentioned in connection with the Navy's role in what the Bush Administration refers to as the Global War on Terrorism (GWOT).[2]

The LCS would displace about 3,000 tons — about the size of a corvette or Coast Guard cutter. It would have a maximum speed of about 45 knots, compared to about 30 knots for the Navy's current surface combatants. The LCS would have a shallower draft than the Navy's current surface combatants, permitting it to operate in certain coastal waters and visit certain ports that are not accessible to the Navy's current large surface combatants. The LCS would employ automation to achieve a reduced crew size of 40 "core" crew members, not including the additional crew members that would operate the embarked mission packages.

In FY2005, Congress approved the Navy's plan to fund the construction of the first two LCSs using research and development funds rather than shipbuilding funds, funded the first LCS's construction cost, required the second LCS to be built to a different design from the first, prohibited the Navy from requesting funds in FY2006 to build a third LCS, and required all LCSs built after the lead ships of each design to be funded in the Navy's shipbuilding account rather than its research and development account.

In FY2006, Congress funded the procurement of the second, third, and fourth LCSs. (The Navy requested one LCS for FY2006, consistent with Congress's FY2005 action. Congress funded that ship and provided funding for two additional ships.) Congress in FY2006 also established a $220-million unit procurement cost limit on the fifth and sixth LCSs (the two ships to be procured in FY2007), plus adjustments for inflation and other factors, required an annual report on LCS mission packages, and made procurement of more than four LCSs contingent on the Navy certifying that there exists a stable design for the LCS.

For FY2007, the Navy requested $520.7 million to procure two additional LCSs. Section 124 of the conference report on the FY2006 defense authorization bill (H.R. 1815/P.L. 109-163), limits the cost of these two ships to $220 million per ship, plus

---

[2] For more on the Navy's role in the GWOT, see CRS Report RS22373, *Navy Role in Global War on Terrorism (GWOT) — Background and Issues for Congress*, by Ronald O'Rourke.

adjustments for inflation and other factors. The Navy's FY2007 unfunded requirements list (URL) — its "wish list" of items desired but not included in the FY2007 budget — included an additional two LCSs for an additional $520 million.

On May 27, 2004, the Navy awarded contracts to teams led by Lockheed Martin and General Dynamics (GD) for final system design of two versions of the LCS, with options for detailed design and construction of up to two LCSs each. The Lockheed team is building the FY2006 LCS and one of the FY2007 ships, while the GD team is building the other two FY2006 ships. The Navy wants to build LCSs to the two teams' initial (i.e., "Flight 0") LCS designs through at least FY2009 before deciding whether to shift to one or two modified Flight 1 designs. Lockheed is building its LCSs at Marinette Marine of Marinette, WI, and Bollinger Shipyards of Louisiana and Texas,[3] with the first being built by Marinette. GD is building its LCSs at Austal USA of Mobile, AL.[4]

The Navy procured the first and second LCSs through the Navy's research and development account rather than the Navy's ship-procurement account. The Navy is procuring LCS mission packages through the Other Procurement, Navy (OPN) account rather than the Navy's ship-procurement account.

Table 1 shows LCS funding through FY2011. The Navy's FY2007 budget submission estimates the total procurement cost of a class of 56 (not 55) LCS sea frames at about $17.6 billion in then-year dollars. Using figures in **Table 1**, when other LCS program costs are included, the LCS program might have a total acquisition (development plus procurement) cost of more than $26 billion, or more than $470 million per ship, in then-year dollars.

---

[3] Bollinger operates about 15 shipyards and ship-related facilities in Louisiana and Texas, of which three, located in Lockport, LA, Gretna, LA, and Amelia, LA, are for building new ships.

[4] Austal USA was created in 1999 as a joint venture between Austal Limited of Henderson, Western Australia and Bender Shipbuilding & Repair Company of Mobile, AL. The Lockheed LCS team also includes GD/BIW as prime contractor, to provide program management and planning, to provide technical management, and to serve as "LCS system production lead."

Table 1. LCS Program Funding, FY2002-FY2011

(millions of then-year dollars; totals may not add due to rounding)

	03	04	05	06	07	08	09	10	11	Total thru FY11
Research, Development, Test & Evaluation, Navy (RDT&EN) account										
Ship 1 construction *(qty)*	0	0	206.7 (1)	59.2	8.5	0	0	0	0	274..5
Ship 2 construction *(qty)*	0	0	16.0	207.1 (1)	55.0	0	0	0	0	278.1
Ships 1and 2 outfit-ting/post delivery	0	0	0	8.7	36.7	36.8	7.1	0	0	89.3
LCS ship development	35.3	160.1	228.0	86.0	57.0	60.3	43.2	43.9	22.4	736.2
LCS mission package project *(qty)*	0	0	0	213.0 (3)	162.3 (1)	90.4	82.5	100.1	40.8	689.2 (4)
Subtotal RDT&EN	35.3	160.1	450.8	574.0	319.6	187.6	132.8	144.1	63.2	2067.3
Shipbuilding and Conversion, Navy (SCN) account										
Ships 3-27 construction *(qty)*	0	0	0	440.0 (2)	520.7 *(2)*	947.6 *(3)*	1764.3 *(6)*	1774.2 *(6)*	1825.4 *(6)*	7272.3 *(25)*
Outfitting & post delivery	0	0	0	0	13	37	70	95	122	337
Subtotal SCN	0	0	0	440.0	533.7	984.6	1834.3	1869.2	1947.4	7609.3
Other Procurement, Navy (OPN) account (for LCS mission packages)										
Subtotal OPN *(qty)*	0	0	0	40.1 *(0)*	79.1 *(1)*	207.6 *(3)*	652.3 *(13)*	656.2 *(12)*	720.2 *(15)*	2355.5 *(44)*
Weapons Procurement, Navy (WPN) account										
Subtotal WPN	0	0	0	0	0	12.5	39.1	91.0	134.2	276.8
TOTAL	35.3	160.1	450.8	1054.1	919.3	1355.3	2588.5	2665.6	2743.0	12308.9

Source: Navy Office of Legislative Affairs, March 6 and April 17, 2006.

Table 2 shows projected procurement of LCSs as shown in a Navy 30-year shipbuilding plan dated December 30, 2005.

Table 2. Projected Procurement Of LCSs

FY	LCS[a]
07	2
08	3
09	6
10	6
11	6
12	6
13	5
14	6
15	6
16	5
17	
18	
19	
20	
21	
22	
23	
24	
25	
26	
27	
28	
29	
30	1
31	1
32	2
33	3
34	6
35	6
36	4

Source: U.S. Department of the Navy, *Draft Report to Congress on Annual Long-Range Plan for Construction of Naval Vessels for FY 2007*. Table 1 on page 7.
a. Plus one LCS procured in FY2005 and another three procured in FY2006.

Potential Oversight Issues for Congress

The LCS program raises several potential oversight issues for Congress. These issues are discussed below.

Increase in Sea Frame Unit Procurement Cost

Estimated LCS sea frame unit procurement costs as shown in the FY2007 budget submission are substantially greater than figures shown in the FY2006 budget submission. The estimate for the first LCS has increased from $212.5 million to $274.5 million, an increase of about 29%. The estimate for the second LCS has increased from $256.5 million to $278.1 million, an increase of about 8%. As shown in **Table 3**, the estimate for follow-on ships to be procured in FY2009-FY2011, when the LCS program is to reach its maximum annual procurement rate of 6 ships per year, has increased from $223.3 million in then-year dollars to $298 million in then-year dollars, an increase of about 33%.

The Navy states that these differences are due mostly to the fact that the figures shown in last year's budget did not include items that are traditionally included in the total budgeted procurement cost of a Navy shipbuilding program, such as Navy program-management costs, an allowance for changes, and escalation (inflation). The absence of these costs from last year's LCS budget submission raises potential oversight issues for Congress, including the following:

- Why were these costs excluded from the LCS budget submission in last year's budget? Was this an oversight? If so, how could such an oversight occur, and why did it occur on the LCS program but not other programs? Was anyone held accountable for this oversight, and if so, how? If this was not an oversight, then what was the reason?

- Do LCS procurement costs as presented in the FY2007 budget submission now include all costs that, under traditional budgeting practices, should be included in LCS procurement costs? If not, how many other costs are still unacknowledged? Have personnel or resources from other Navy programs been used for the LCS program in any way? If so, have the costs of these personnel or resources been fully charged to the LCS program and fully reflected in LCS program costs shown in the FY2007 budget submission?

- What is the likelihood that the Navy in future budget submissions will substantially increase procurement cost estimates for other Navy shipbuilding programs to account for costs that were excluded from previous budgets? Does the Navy believe there is no substantial risk of penalty for submitting to Congress a budget presentation for a shipbuilding program that, for whatever reason, significantly underestimates procurement costs?

Table 3. LCS Sea Frame Unit Procurement Costs
(Costs in millions of then-year dollars)

	FY07	FY08	FY09	FY10	FY11	FY09-11
FY2006 budget submission						
Procurement cost	542.4	779.7	1,127.2	1,112.3	1,110.3	3,349.8
Number of ships	2	3	5	5	5	15
Unit procurement cost	**271.2**	**259.9**	**225.4**	**222.5**	**222.1**	**223.3**
FY2007 budget submission						
Procurement cost	520.7	947.6	1,764.3	1,774.2	1,825.4	5,363.9
Number of ships	2	3	6	6	6	18
Unit procurement cost	**260.4**	**315.9**	**294.1**	**295.7**	**304.2**	**298.0**
% change in unit procurement cost, FY07 compared to FY06	**(4%)**	**21%**	**30%**	**33%**	**37%**	**33%**

Source: Prepared by CRS using Navy data from FY2006 and FY2007 Navy budget submissions.

Cost Cap on Fifth and Sixth Ships

Navy officials have stated to CRS that the fifth and sixth LCSs will meet the legislated cost cap of $220 million per ship because the hands-on construction cost of the ships, when adjusted for inflation, fall within the $220-million figure.[5] The Navy's explanation suggests that the Navy is interpreting the LCS cost cap as something that applies to the hands-on construction cost of the ship, rather than to the larger procurement cost of the ship as it appears in the budget, which includes costs for other items, such as Navy program-management costs and allowance for changes. The LCS cost cap (Sec. 124 of H.R. 1815/P.L. 109-163) refers to "the total amount obligated or expended for procurement of the fifth and sixth vessels...." Potential oversight questions for Congress include the following:

- Does the Navy's apparent interpretation of the meaning of the LCS cost cap mean that the Navy will interpret cost caps on other Navy shipbuilding programs the same way, so as to exclude budgeted procurement costs other than the actual hands-on construction costs of the ships?

- Is the Navy's apparent interpretation of the LCS cost cap consistent with how the Navy interpreted past legislated cost caps on ships such as the Seawolf-class submarines and the aircraft carrier CVN-77?

[5] Source: Information paper provided to CRS by Navy Office of Legislative Affairs, Apr. 3, 2006.

Total Program Acquisition Cost

Although this CRS report estimates that a 55-ship LCS program might have a total acquisition cost of more than $26 billion, the potential total acquisition cost of the LCS program is uncertain. Supporters could argue that total program acquisition cost will become clearer as the Navy works through the details of the program. Critics could argue that a major acquisition program like the LCS program should not proceed at full pace until its potential total costs are better understood.

Acquisition Strategy

The Navy's acquisition strategy for the LCS program remains unclear in terms of the following:

- the date when procurement will shift from the current Flight 0 designs to one or two modified Flight 1 designs;
- the future division of work between the Lockheed-led and General-dynamics led LCS teams, and how this division will be determined; and
- whether the Navy at some point will decide to downselect to only one industry team.

Observers have also expressed concern about the degree of coordination between procurement of LCS sea frames and development and procurement of LCS mission packages.[6]

Mission Packages Funded in OPN Account

As mentioned in the Background section, the Navy plans to procure LCS mission packages through the Other Procurement, Navy (OPN) appropriation account rather than the Navy's ship-procurement account. The OPN account, as its name suggests, is a large, "grab-bag" appropriation account for procuring a wide variety of items, many of them miscellaneous in nature.

Supporters of the Navy's plan can argue that it is consistent with the traditional practice of procuring ship weapons (e.g., missiles and gun shells) through the Weapon Procurement, Navy (WPN) appropriation account or the Procurement of Ammunition, Navy and Marine Corps (PANMC) appropriation account rather than the ship-procurement account. LCS mission packages, they could argue, are the payload of the LCS, just as missiles and gun shells are the payload of other types of

---

[6] For more on Navy efforts to develop LCS mission packages, see Chris Johnson, "Advanced Deployable System Faces Weight and Manpower Issues," *Inside the Navy*, Aug. 14, 2006; Chris Johnson, "Program Manager Says LCS Mission Module Testing 'On Track'," *Inside the Navy*, Aug. 14, 2006; and Michael Bruno, "With LCS Launching Soon, Navy Still Works On USVs," *Aerospace Daily & Defense Report*," Aug. 25, 2006.

surface combatants, and should therefore be funded outside the ship-procurement account.

Those skeptical of the Navy's plan to fund LCS mission packages through the OPN account could argue that the LCS mission packages are not comparable to missiles and gun shells. Missiles and gun shells, they could argue, are expendable items that are procured for use by various classes of ships while the LCS mission packages will incorporate sensors as well as weapons, are not intended to be expendable in the way that missiles and gun shells are, and are to be used largely, if not exclusively, by LCSs, making them intrinsic to the LCS program. In light of this, they could argue, it would be more consistent to fund LCS mission packages in the ship-procurement account rather than the OPN account.

Potential oversight questions for Congress include the following:

- Are LCS mission packages analogous to missiles and gun shells that are procured through the WPN and PANMC appropriation accounts?

- Does the Navy's plan to fund the LCS mission packages through this account effectively obscure a significant portion of the total LCS program acquisition cost by placing them in a part of the Navy's budget where they might be less visible to Congress? If so, was this the Navy's intention?

- Does funding a significant portion of the LCS program's total procurement cost through the OPN account give the LCS program an unfair advantage in the competition for limited ship-procurement funding by making the LCS program, as it appears in the ship-procurement account, look less expensive? If so, was this the Navy's intention?

Options for Congress

Potential options for Congress on the LCS program, some of which could be combined, include the following:

- approve the program as proposed by the Navy;

- use a block-buy contract for LCSs procured during the five-year period FY2007-FY2011;

- shift procurement of LCS mission packages to the SCN account to make these costs more visible to Congress;

- shift production of some LCSs to GD/BIW or NGSS or both to provide more work for one or both of these facilities;

- procure a few LCSs and then evaluate them in exercises before deciding whether to put the LCS into larger-scale series production; and

- terminate the LCS program and invest more in other littoral-warfare improvements.

FY2007 Legislative Activity

FY2007 Defense Authorization Act (H.R. 5122/P.L. 109-364)

House. The House Armed Services Committees, in its report on H.R. 5122 (H.Rept. 109-452 of May 5, 2006), recommended approval of the $520.7 million requested for procuring two LCSs, and expressed concerns about the program's acquisition strategy. The report stated:

> The committee is concerned about the uncertainty in the Navy's acquisition strategy for the Littoral Combat Ship (LCS).... How long the Navy intends to continue with two separate designs for these vessels remains unclear. The committee believes that it is also unclear when the Navy will place this program into the discipline of the normal acquisition process with definitive and mature requirements and Director, Operational Test and Evaluation, review before continuing with procurement.... the committee encourages the Navy to develop an acquisition strategy for the long-term that clarifies any ambiguity in the current build profile. The committee further encourages the Navy to downselect to one of the two LCS variants currently in procurement in order to achieve economy of scale, or present a compelling case to the congressional defense committees on why both variants should be procured. (Page 69)

Senate. The Senate Armed Services Committees, in its report (S.Rept. 109-254 of May 9, 2006) on the Senate version of the FY2007 defense authorization bill (S. 2766), recommended approval of the $520.7 million requested for procuring two LCSs, and expressed concerns about the program's acquisition strategy. The report stated:

> The construction of lead LCS vessels at two shipyards inherently adds cost risk, which will persist until these ships near completion in 2007 and 2008. The emphasis on cost control would dictate that the Navy pursue competition, commonality, and the results of learning curves to the extent practical in the procurement of this 55 ship class.
>
> The committee views LCS as an important component of the Navy's strategy for conducting the global war on terror, and has supported the Navy's approach to rapidly field this capability. The design and construction of LCS in parallel with development of the mission modules requires heightened management of program risk to ensure affordable, full mission capability of the LCS program. However, the committee is concerned that the affordability appeal of the LCS program is being overtaken by apparent cost growth, and that the rapid ramp up in LCS procurement will compound the issue. The stated emphasis on affordability is obscured by the absence of a clear acquisition strategy to guide strategic program decisions. Additionally, it is unclear that the Navy has assessed

> the added cost for training, maintenance, configuration management, planning and engineering, and supply support for the two flight 0 ship classes. Further, by virtue of budgeting the costs for procuring the flight 0 LCS vessels in three different appropriations, total costs for the program's start are difficult to discern.
>
> In view of these concerns, the committee directs the Secretary of the Navy to submit a report on the LCS program, no later than December 1, 2006 to the congressional defense committees. The report shall outline the Navy's acquisition strategy for the program, including the competition plan, the flight strategy, and the cost containment strategy for the program; contain a clear representation of all R&D and procurement costs for the total program; and assess the added life cycle costs associated with operation and support for two dissimilar flight 0 LCS designs. (Page 113)

Conference Report. The conference report on H.R. 5122 (H.Rept. 109-702 of September 29, 2006) approves the Navy's request for $520.7 million in procurement funding for the program (page 501).

FY2007 Defense Appropriations Act (H.R. 5631/P.L. 109-289)

House. The House Appropriations Committee, in its report on H.R. 5631 (H.Rept. 109-504 of June 16, 2006), recommended approval of the $521 million requested for procuring two LCSs (page 141). The committee also recommended increasing funding for LCS research and development work by $12.6 million above the requested amount to fund four additional LCS-related research and development projects (pages 239 and 250).

Senate. The Senate Appropriations Committee, in its report on H.R. 5631 (S.Rept. 109-292 of July 25, 2006), recommended funding the procurement of one LCS (rather than the requested two) in FY2007, and rescinding funding (in Section 8043) for one of the three LCSs procured in FY2006 (pages 114, 115-116, and 230-231). The report states:

> The Navy's [earlier LCS] acquisition strategy was to procure four flight 0 ships evenly split between two competing designs and then progress to a single flight 1 design selected while evaluating system performance of the flight 0 ships. In 2005, the Navy proposed expanding the planned purchase of flight 0 ships from four to 15 and to continue production of both designs.
>
> The Defense Appropriations Act, 2006 (Public Law 109-148) appropriated an additional $440,000,000 in the "Shipbuilding and Conversion, Navy" account to accelerate procurement of the third and fourth LCS flight 0 ships. The additional funding was based upon the Navy's estimated $220,000,000 unit cost. With the fiscal year 2007 budget submission of $520,670,000 for the fifth and sixth LCS flight 0 ships, the Navy revealed the LCS unit cost estimate used as a basis for last year's appropriation was exclusive of contract change orders, planning and engineering services, program management support and other costs not included in the ship construction contract. The Congressional Research Service estimates these adjustments would increase the average unit cost of LCS ships about 33 percent, to approximately $300,000,000. As a result, the Navy is unable to procure both the third and fourth LCS flight 0 ships without the availability of additional funding. The Committee is troubled by this revelation

> and recommends rescinding the insufficient fiscal year 2006 funds currently allocated to the fourth LCS flight 0 vessel.
>
> The Committee is further troubled by reports that the first two LCS flight 0 ships under construction are exceeding their cost as previously budgeted. In last year's report, the Committee reminded the Navy that "the appeal of the LCS is its relative simplicity of design and low cost." The Committee believes cost growth and design changes are jeopardizing the affordability appeal of LCS. As a result, the Committee believes the fiscal year 2007 budget request is insufficient to procure two ships and recommends $300,670,000 to fully fund procurement of one LCS seaframe, which is a reduction of $220,000,000 and one seaframe from the request. The Committee notes that this recommendation puts the Navy on its previously established path of procuring four LCS flight 0 ships by the end of fiscal year 2007. (Pages 115-116)

The report recommended increasing the FY2007 request for LCS research and development funding by $1.8 million for advanced lightweight metals technology for aluminum-intensive marine structures (pages 177 and 185).

Conference Report. The conference report on H.R. 5631 (H.Rept. 109-676 of September 25, 2006) approves the Navy's request for $520.7 million in procurement funding for the program (pages 178 and 179).